北海道大学遺伝子病制御研究所セミナー

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Fly-to-Bedside

Cancer has seen a revolution in recent years, led by the rise of genomics, precision medicine, and immune-based therapies. Nevertheless, the majority of tumors fail to durably respond to current treatments, and cancer remains one of the leading causes of mortality worldwide. One key challenge is tumors complexity and its impact on the whole body network. Our laboratory uses *Drosophila*—and broad collaborations with multiple laboratories and clinicians—to address three aspects of cancer that I will discuss.

First, to explore genomic complexity we are generating genetically complex cancer models that contain nine or more altered genes that match individual patients. We are using these models to explore emergent drug resistance. Second, we are using these 'personalized fly avatars' in an open-label clinical trial to develop personalized drug cocktails designed to treat thyroid and colorectal cancer patients. Finally, we are using our models in a collaboration with chemical and computational biologists to develop next-generation lead therapeutic compounds designed to address cancer's whole body complexity. Our overall goal is to leverage *Drosophila* as one tool in an integrated approach to cancer therapeutics.

日時：2019年12月2日（月）10:00-11:00
場所：医学部 北棟5階 セミナー室

後援：共同利用・共同研究拠点「細菌やウイルスの持続性感染により発生する感染癌の先端的研究拠点」
遺伝子病制御研究所リエゾンラボ事業

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